# I-680/I-880 Cross Connector Conceptual Study Report

## Design Criteria

| Location | Classification | Posted Speed (mph/kmh) | Design Speed (mph/kmh) | Min K Value (Sag/ Crest) | Min Grade | Max Grade | Vertical Grade Break | emax | Side Friction Factor "f" | Rmin | Min SSD | Approach Taper | Shldr Width (Ft/ M) | Lane Width (Ft/ M) | No. of Lanes | Median Width (FT/ M) | Sidewalk Width/ Detached Dist (Ft/M) | Curb and Gutter (median/ flowline) | Min. Vertical Clearance (M) | Structure/ Falsework Depth (M) | Max. Fill/ Cut Slope |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Interstate 880 | Urban Freeway | 65mph/ 110kmh | 75mph/ 120 kmh | 50/ 102 | 0.30% | 6% | | 10% | 0.09 | 495 m | 255 m | | | | | | | | | | |
| Interstate 680 | Urban Freeway | 65mph/ 110kmh | 75mph/ 120 kmh | 50/ 102 | 0.30% | 6% | | 10% | 0.09 | 495 m | 255 m | | | | | | | | | | |
| HOV Lanes | City Arterial | 45mph/ 70 kmh | | | 0.30% | 6% | | 10% | 0.09 | 495 m | 255 m | | | | | | | | | | |
| Loop Ramps | Urban Freeway | 25mph/ 40kmh | 35mph/ 60kmh | 15/ 14 | 0.30% | 6% | | 12% | 0.15 | 105 m | | | 8/ 2.4OS, 4/1.2IS | See Table 504.3 | 1 | N/A | N/A | N/A | | | |
| Single Lane Ramps | Urban Freeway | 25mph/ 40kmh | | | 0.30% | 6% | | 12% | | | | | 8/ 2.4OS, 4/1.2IS | 12/3.6 | 1 | N/A | N/A | N/A | | | |
| Multilane Ramps | Urban Freeway | 25mph/ 40kmh | | | 0.30% | 6% | | 12% | | | | | 8/ 2.4OS, 4/1.2IS | 12/3.6 | 2 | N/A | N/A | N/A | | | |
| Auto Mall Parkway | City Arterial | 45mph/ 70 kmh | | | | | | | | | | | | | | | | | | | |
| Grimmer Blvd | City Arterial | 45mph/ 70 kmh | | | | | | | | | | | | | | | | | | | |
| Fremont Blvd | City Arterial | 45mph/ 70 kmh | | | | | | | | | | | | | | | | | | | |
| Mission Blvd | Express-way | 45mph/ 70 kmh | 55mph/ 90 kmh | 30/ 43 | 0.30% | 5% | 0.2% | 6% | 0.13 | 335 m | 105 m | 54:1 | 5/ 1.5 | 12ft/ 3.6m | 2ED, 1TL | N/A | 12/3.6, 0/0 | | | | |
| Mission Tunnel | Express-way | 45mph/ 70 kmh | 55mph/ 90 kmh | 30/ 43 | 0.30% | 6% | 0.2% | 6% | 0.13 | 335 m | 105 m | | 8/ 2.4 | 12ft/ 3.6m | 2ED | 8/ 2.4 | N/A | | 4.6 | 1.29/ 1.04 | |
| Scott Creek Road | City Arterial | 45mph/ 70 kmh | | | | | | | | | | | | | | | | | | | |
| Dixon Landing Road | City Arterial | 45mph/ 70 kmh | | | | | | | | | | | | | | | | | | | |
| Calaveras Blvd | Express-way | 45mph/ 70 kmh | | | | | | | | | | | | | | | | | | | |
| Montague Expressway | Express-way | 45mph/ 70 kmh | | | | | | | | | | | | | | | | | | | |

ED - Each Direction
TL - Turn Lane
IS - Inside Shoulder
OS - Outside Shoulder

Weaving Length (Ft/ M) Fig 504.7a LOS C/D
Bay Tapers, See Table 405.2A
For Deceleration Lane Length, See Table 405.2B
For Superelevation Runoff Lengths and Transitions, See Figure 202.5
The min curve length for central angles less than 10 degrees should be pg 200-21 Highway Design Manual
For central angles less than 30 minutes, no curve is required pg 200-21 Highway Design Manual
For structure depths, See section 204.6 pg 200-27 Highway Design Manual